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ABSTRACT

The transferability, quality, and student perception of biology instruction at Metropolitan Campus, Cuyahoga Community College (Cleveland, Ohio) were the data sought in this joint study performed by the College's Department of Biology and the Office of Institutional Research and Studies. All Students who completed Biology 112 in the 1967-68 academic year and who went on to 4-year institutions answered a 22-part questionnaire on which the following conclusions are based: (1) the biology courses at Cuyahoga were generally transferable to 4-year institutions; (2) a majority of students felt that instruction at Cuyahoga Community College was equivalent to or better than that at the 4-year institutions now attended; and (3) the academic standing of students at the 4-year institutions was slightly lower than their standing at the Metropolitan Campus. (JO)

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BIOLOGY STUDENTS

A STUDY OF TRANSFERS

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FOREWORD

This study has significance beyond its immediate value since it demonstrates a productive collaboration between an operational department and a support service of the college.

Its findings have direct application to instruction and curriculum planning. The questions to which the study sought answers are those which the department framed. The study design was jointly developed. The collection of data, their analysis and the final writing of the study was a cooperative effort.

Commendations are due to the Department of Biology on the Metropolitan Campus and the Office of Institutional Research and Studies.

The Office offers its services to all operating departments of the college having study or research notions they wish to explore.

Alfred M. Livingston
Executive Vice-President

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INTRODUCTION

Are Cuyahoga Community College biology courses transferrable to four-year institutions? Does biology instruction at Cuyahoga Community College prepare the transfer student to receive science instruction at a four-year institution? To answer these questions and others, a study was conducted by the Biology Department of the Metropolitan Campus with the cooperation of the Office of Institutional Research. This study, which attempts to evaluate many aspects of the biology program at Cuyahoga Community College-Metropolitan Campus, has four specific objectives: (1) to relate biology instruction at Cuyahoga Community College to instruction at various transfer institutions; (2) to solicit students' opinions about the biology curriculum at Cuyahoga Community College; (3) to determine the transferrability of Cuyahoga Community College's biology courses; and (4) to determine the number of students who follow-up their initial science course work at Cuyahoga Community College with work in science after transferring to a four-year institution.

The data was collected by two methods. Part I of the study, completed by the Office of Institutional Research, determined the number of students completing General Biology 112 and identified the students for further research. This data was obtained from institutional records. Receiving institutions were then contacted to determine which students were enrolled in a four-year college. It was determined that 115 students who had completed Biology 112 in the 1967-68 academic year could be identified. Additional follow-up of these students indicated that 40 had actually transferred to a four-year institution.

Part I of this study analyzes those 40 students in terms of college attended, number of hours transferred and grade-point average at the receiving institution.

Part II of the study was conducted by the staff of the Biology Department of the Metropolitan Campus. The data for this part of the study was obtained by a questionnaire constructed in co-operation with the Office of Institutional Research and Studies. Members of the biology department contacted the biology departments at receiving institutions and conducted questionnaire research on an interview basis at those institutions. Data on 23 students was obtained by this method. Part II of the study probes in greater detail the areas of: major field of study, reasons for enrolling in science, the transferrability of credit for the general biology sequence, and a comparison of facilities at Cuyahoga Community College-Metropolitan Campus to the facilities at receiving institutions.

Each table and its related narrative in the study can be interpreted separately; however a brief conclusion at the end of the study summarizes some of the more important findings of the study as a whole. The subjectivity of some of the collected data should be noted; its value should be determined by the situation for which it is being used.

A copy of the interview questionnaire is contained in the appendix of this study.

I - DESCRIPTION OF STUDENTS ENROLLED IN GENERAL BIOLOGY 112

There are three purposes for this part of the study: to present a description of the students completing General Biology 112 during 1967-68, to provide some measure for their success upon transferring to four-year colleges and universities, and to compare their success at Cuyahoga Community College to their success at the four-year institutions.

Enrollment Status of Students

Table I shows that 115 students included in this study completed General Biology 112. The table indicates a division of the 115 students into five categories: students who transferred, students still enrolled at Cuyahoga Community College during the collection of data, students who did not request transcripts (speculatively, for reasons such as entry into military service, acceptance of jobs not requiring a transcript, or female students who married), students who were academically dismissed, and cases in which no data was available on the students' present status.

For the purpose of this study, the most significant group of students completing General Biology 112 is the group of 40 students, or 35 percent of the total respondents, who transferred to four-year institutions.

Twenty-six students, or 23 percent of the respondents who completed General Biology 112, were still enrolled at Cuyahoga Community College when the data was collected. Six students did not request

that transcripts be sent to other institutions thus indicating no attempt to transfer. In 42 of the 115 cases, there was no indication whether the student was enrolled at Cuyahoga Community College or attending another institution. One academic dismissal appeared in the group.

The findings in this study are based on the 40 students who transferred to a four-year college.

TABLE 1

DESCRIPTION OF POPULATION COMPLETING GENERAL BIOLOGY 112
(1967-68)

Description	Number	Per Cent
Students Who Transferred	40	35%
Students Still Enrolled at Cuyahoga Community College	26	23%
Students Who Did Not Request Transcripts	6	5%
Students on Academic Dismissal	1	1%
No Information on Students' Present Status	42	36%
Total	115	100%

Quarter-Hours of Credit Completed

Table II shows the number of quarter-hours completed at Cuyahoga Community College by the students who transferred. Of the 40 transfer students, two had accumulated between 1 and 29 quarter-hours of credit at Cuyahoga Community College, three had earned 30 to 59 quarter-hours, 15 transfer students, or 37 percent, had 60 quarter-hours of credit or more, and 20 transfers or one-half of the respondents were graduates of Cuyahoga Community College. Thus 87 percent of the respondents who transferred to four-year institutions had either earned more than 60 quarter-hours of credit or had graduated from Cuyahoga Community College.

TABLE II

DESCRIPTION OF TRANSFER STUDENTS BY QUARTER-HOURS OF CREDIT EARNED AT CUYAHOGA COMMUNITY COLLEGE

Quarter-Hours of Credit Earned	Transfer Students	
	Number	Percent
1-29 quarter-hours	2	5 %
30-59 quarter-hours	3	8 %
60 or more quarter-hours	15	37 %
Graduated	20	50 %
Total	40	100 %

Institutions to Which Students Transferred

Table III shows the institutions to which students transferred according to the number of quarter-hours of credit earned. Of the 21 students who transferred to Cleveland State University, the leading transfer institution, 57 percent were graduates. Kent State University ranked next in popularity with 11 transfers from Cuyahoga Community College.

TABLE III

INSTITUTIONS TO WHICH STUDENTS TRANSFERRED BY QUARTER-HOURS EARNED

Institution	Quarter-Hours									
	1-29		30-59		60 or more		Graduated		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Cleveland State University	2	9%	1	5%	6	29%	12	57%	21	100%
Kent State University					5	46%	6	54%	11	100%
Ohio State University			1	20%	2	40%	2	40%	5	100%
Baldwin Wallace College					1	100%			1	100%
Ohio University			1	50%	1	50%			2	100%
Total	2	5%	3	8%	15	37%	20	50%	40	100%

Comparison of Grade-Point Averages

Table IV compares the transfer students' Cuyahoga Community College grade-point average to their average at the receiving institution.

Ninety-five percent of the students earned a 2.00 grade-point average or above at Cuyahoga Community College, while 80 percent earned a 2.00 grade-point average or better at the transfer institutions.

TABLE IV

GRADE-POINT AVERAGE OF TRANSFER STUDENTS

Grade-point Average	Cuyahoga Community College		Receiving Institution	
	Number	Per Cent	Number	Per Cent
0.00-1.99	2	5%	8	20%
2.00-4.00	38	95%	32	80%
Total	40	100%	40	100%

Comparison of Grade-Point Averages of Students Completing 60 or More Quarter-Hours of Credit

Table V compares the Cuyahoga Community College grade-point average to the present grade-point average of students who transferred 60 or more quarter-hours of credit. Table V shows that of the Cuyahoga Community College graduates 80 percent had a grade-point average of 2.00 at the receiving institution compared to 100 percent at Cuyahoga Community College. Of those who had completed more than 60 quarter-hours but had not graduated 87 percent had a grade-point average above 2.00 at the

receiving institution compared to 93 percent at Cuyahoga Community College. From this information it can be concluded that of the 35 students who had completed 60 or more quarter-hours of credit prior to transfer 34 students or 97 percent were in good standing at Cuyahoga Community College compared to 29 students or 83 percent who were in good standing at the receiving institution.

TABLE V

GRADE-POINT AVERAGE AT CUYAHOGA COMMUNITY COLLEGE AND PRESENT INSTITUTION

OF STUDENTS COMPLETING 60 OR MORE QUARTER-HOURS

Grade-Point Average	Quarter-Hours at Cuyahoga Community College						Quarter-Hours at Present Institution					
	60 or more		Graduated		Total		60 or more		Graduated		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
0.00-1.99	1	7%			1	3%	2	13%	4	20%	6	17%
2.00-4.00	14	93%	20	100%	34	97%	13	87%	16	80%	29	83%
Total	15	100%	20	100%	35	100%	15	100%	20	100%	35	100%

II - TRANSFER STUDENTS' OPINIONS OF BIOLOGY PROGRAM

The purpose of this part of the study is to determine the reason for taking General Biology 112, to determine its transferrability, to compare the facilities at Brownell with those of a four-year institution, and to compare the quality of instruction obtained. Attention was also focused on the need for more and/or different course offerings in biology as well as what should be taken more extensively before transferring.[1] The data for this section of the study was obtained by questionnaire and interviews conducted by the staff of the Biology Department of the Metropolitan Campus.

Four-Year Institutions Students Are Attending

The students who participated in this study were from the following colleges: Case Western Reserve University, Cleveland State University, Ohio University, Ohio State University, Kent State University, Baldwin Wallace College, East Carolina College, and Louisiana Polytechnic Institute.

Thirty-three questionnaires were sent to transfer students who had completed General Biology 112. Twenty-three students or 73 percent responded to the questionnaire.

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1 At the time the students participating in this study had been in the converted facilities at Brownell. Since the study, however, the facilities and course offerings have been expanded.

TABLE VI

FOUR-YEAR INSTITUTIONS STUDENTS ARE ATTENDING

Institution	Number of Students	Per Cent
Kent State University	10	44%
Ohio State University	4	17%
Baldwin Wallace College	3	14%
Cleveland State University	2	9%
Case Western Reserve University	1	4%
East Carolina College	1	4%
Louisiana Polytechnic Institute	1	4%
Ohio University	1	4%
Total	23	100%

Cuyahoga Community College Program in Which Students Were Enrolled

Table VII indicates the type of program in which the students were enrolled at Cuyahoga Community College. Nineteen students or 84 percent were following a curriculum designed for transfer students and two students or eight percent were following a general curriculum. One student was a transient student from Case Western Reserve while one student was following a transfer curriculum as well as a general curriculum.

TABLE VII

TYPE OF DEGREE PROGRAM

Type	Number of Students	Per Cent
Transfer	19	84%
General	2	8%
Transfer-General	1	4%
Transient	1	4%
Total	23	100%

No student followed a curriculum designed for immediate employment. Of the 23 respondents, 13 students or 57 percent earned an Associate in Arts Degree before transferring.

At the time these students were enrolled at Cuyahoga Community College 13 students or 57 percent had declared a major or academic field and ten students or 43 percent had not. Table VIII shows the type of majors or academic fields the students had declared.

TABLE VIII

DECLARED MAJORS AT CUYAHOGA COMMUNITY COLLEGE

Major	Number of Students	Per Cent
Biology	5	39%
Biology & Chemistry	2	15%
Wildlife Management	2	15%
Psychology	2	15%
English	1	8%
Elementary Education	1	8%
Total	13	100%

Sixty-nine percent of the students who declared a major had chosen biology or a related science area.

Reasons for Enrolling in General Biology 112

Table IX shows that 12 students or 52 percent took General Biology 112 for transfer credit, eight students took the course to satisfy requirements for biology majors, and three students took the course for other reasons. Among the other reasons cited were an interest in biology, a need for the course due to the student's major curriculum, and the completion of high school requirements to permit admission to a four-year college.

TABLE IX

REASON FOR ENROLLING IN GENERAL BIOLOGY AT CUYAHOGA COMMUNITY COLLEGE

Reason	Number of Students	Per Cent
Transfer	12	52%
Biology Major	8	35%
Other	3	13%
Total	23	100%

Students' Opinions of Instruction

Table X shows the students' opinions in reference to their biology teachers' knowledge of subject material. Thirteen students or 57 percent felt their teachers' knowledge to be excellent; seven students or 30 percent felt they had good knowledge of the subject matter; two students or nine percent felt the instructors had fair knowledge of the subject matter; and one student felt the instructors varied between excellent and sometimes poor.

All biology majors felt their instructors' knowledge was excellent or good at Cuyahoga Community College.

Eleven students have taken biology courses at their present institution while 12 have not. Of the 11 students who have taken biology courses, two had one course, two had two courses, three had three courses, one had four courses, one had six courses, one had seven courses, and one student had ten courses. These students then rated their instruction in biology at Cuyahoga Community College as compared to

their present institutions.

TABLE X

BIOLOGY TEACHERS' KNOWLEDGE OF SUBJECT MATTER

Knowledge	Number of Students	Per Cent
Excellent	13	57%
Good	7	30%
Fair	2	9%
Sometimes Poor	--	--
Quite Poor	--	--
Sometimes Excellent and Sometimes Poor	1	4%
Total	23	100%

Table XI shows that three students or 27 percent felt that instruction was better at Cuyahoga Community College than at the four-year college. Four students or 37 percent felt that the instruction was not as good at Cuyahoga Community College, and one student or nine percent felt that instruction at Cuyahoga Community College was at times better and at times equivalent to that obtained at the four-year institution.

TABLE XI

COMPARISON OF BIOLOGY INSTRUCTION BY STUDENTS TAKING BIOLOGY COURSES AT BOTH CUYAHOGA COMMUNITY COLLEGE AND AT A FOUR-YEAR COLLEGE

Comparison of Instruction	Number of Students	Per Cent
Better at Cuyahoga Community College	3	27%
Equivalent at Both Institutions	3	27%
Not as Good at Cuyahoga Community College	4	37%
Sometimes Better and Sometimes Equivalent to the Four-Year College	1	9%
Total	11	100%

Transfer of Credit

Table XII shows the transferrability of General Biology 112 to other institutions. All biology majors transferred General Biology 112 from Cuyahoga Community College to the biology major program of their

present four-year institution for full credit. Four students transferred the course with full credit as an elective only, while one student transferred the course as partial credit. Eight students transferred the course as a non-major science requirement and one student who is attending Cleveland State University did not receive transfer credit for General Biology 112.

TABLE XII

TRANSFERRABILITY OF THE GENERAL BIOLOGY SEQUENCE

Transferrability	Biology Majors		Other Majors		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Full credit in biology major program	9	100%	--	--	9	39%
Full credit as an elective	--	--	4	28%	4	18%
Partial credit	--	--	1	7%	1	4%
Fulfillment as non-major science requirement	--	--	8	58%	8	35%
Did not transfer	--	--	1	7%	1	4%
Total	9	100%	14	100%	23	100%

Comparison of Facilities

Table XIII compares Brownell's laboratory facilities to the students' facilities at the four-year institutions. It shows that five students or 22 percent felt that Cuyahoga Community College's laboratory facilities were excellent; ten students or 43 percent felt that the facilities were good; and five students or 22 percent felt that they were fair. One

student felt that the facilities at the four-year college were poor. Three students did not answer because they had no lab courses.

TABLE XIII

COMPARISON OF BROWNELL'S FACILITIES TO FACILITIES OF OTHER INSTITUTIONS

Evaluation of Facilities	Brownell		Other Institutions	
	Number	Per Cent	Number	Per Cent
Excellent	5	22%	6	26%
Good	10	43%	9	39%
Fair	5	22%	4	18%
Poor	-	--	1	4%
No Response	3	13%	3	13%
Total	23	100%	23	100%

Comparison of Grades

Table XIV shows how difficult students felt it was to obtain good grades at Cuyahoga Community College as compared to their present four-year institution. Two students or nine percent felt it was very much harder to earn good grades at Cuyahoga Community College than at their present college. Eight students or 35 percent felt it was somewhat harder at Cuyahoga Community College. Forty-three percent of the respondents or ten students felt it was just as difficult to obtain good grades on both campuses. Two students or nine percent felt it was somewhat easier to earn good grades at Cuyahoga Community College. One

student did not respond. Thirteen students of the total 23 respondents or 57 percent had no biology course work at their present institution and responded to the question in regard to general course work.

TABLE XIV

THE DIFFICULTY OF EARNING GOOD GRADES AT CUYAHOGA COMMUNITY COLLEGE COMPARED TO FOUR-YEAR INSTITUTIONS

Difficulty of Earning Good Grades	Number of Students	Per Cent
Very much harder at Cuyahoga Community College	2	9%
Somewhat harder at Cuyahoga Community College	8	35%
About the same at both institutions	10	43%
Somewhat easier at Cuyahoga Community College	2	9%
Much easier at Cuyahoga Community College	--	--
No response	1	4%
Total	23	100%

Table XV shows the responses obtained from students who had taken biology courses at their present institution. Of these 11 students, six of them or 60 percent felt it was somewhat more difficult to obtain good grades in biology at Cuyahoga Community College. Four students or 40 percent felt it was about as difficult to earn good grades in biology

at both institutions while one student felt that it was somewhat easier to earn good grades in the biology department at Cuyahoga Community College.

TABLE XV

COMPARISON OF EARNING GOOD GRADES IN BIOLOGY BY STUDENTS WHO HAVE TAKEN BIOLOGY AT THEIR PRESENT INSTITUTION

Difficulty of Earning Good Grades	Number of Students	Per Cent
Somewhat more difficult at Cuyahoga Community College	6	55%
About the same at both institutions	4	36%
Somewhat easier at Cuyahoga Community College	1	9%
Total	11	100%

Courses and Curricula

Table XVI shows that 11 students or 48 percent felt that the biology department should offer a greater variety of courses and six students or 26 percent felt that the biology department should keep the present courses only. Four students or 17 percent felt that the biology department should change the present courses to other subject areas such as zoology embryology, etc., while one student wanted more general courses offered and one student wanted botany to be divided into vascular and nonvascular plants. Thus a total of 74 percent of the students indicated that a change in course offering should be made.

TABLE XVI

STUDENTS' OPINIONS OF COURSE OFFERINGS AT CUYAHOGA COMMUNITY COLLEGE'S BIOLOGY DEPARTMENT

Opinions	Number of Students	Per Cent
Greater variety of courses needed	11	48%
Keep present courses only	6	26%
Change present courses	4	17%
Other	2	9%
Total	23	100%

Of the biology majors five students or 60 percent felt that a greater variety of courses should be offered and four students or 40 percent felt that the biology department should present courses in other subject areas such as zoology and embryology.

The students were asked to state which subjects should be taken more extensively before transferring. Table XVII shows that the non-science majors had no opinion. Eleven of the students or 32 percent felt that it would be advantageous to take more mathematics, while eight students or 24 percent of the total respondents felt that it would be advisable to enroll in more chemistry courses.

TABLE XVII

COURSES TO TAKE MORE EXTENSIVELY

Courses	Number	Per Cent
Math	11	32%
Chemistry	8	24%
Physics	5	14%
No Opinion (Non-Science Majors)	10	30%
Total *	34	100%

* The total number of responses exceeds the total number of students because some students listed several courses which should be taken more extensively.

III - CONCLUSION

It can be concluded from an analysis of the data in this study that the students who have taken biology at Cuyahoga Community College-Metropolitan Campus are generally pleased with the instruction that they received here. Similarly, student responses indicate that the instructors' knowledge of subject matter at Cuyahoga Community College is excellent or good. The success of the students after transferring seems to be validated by the fact that of the 40 students who transferred to receiving institutions, 80 percent were in good academic standing at the time the data was collected compared to 95 percent who were in good standing when they left Cuyahoga Community College-Metropolitan Campus. The transferrability of General Biology 112 was supported by the fact that only four percent of the courses listed by students who responded to the survey did not transfer.

In general, the students responding to the questionnaire indicated that earning good grades involved as much or more difficulty at Cuyahoga Community College as at the receiving institutions. In only two cases, representing nine percent of the respondents, was it indicated that good grades are easier to obtain at Cuyahoga Community College. The one finding that received the greatest support from all respondents was the fact that the students desire a greater variety of courses. Of the 23 students interviewed, almost one-half felt that a greater variety of biology courses was needed at Cuyahoga Community College-Metropolitan Campus. [2]

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2 At the time of this study, the Cuyahoga Community College Biology Department did offer less variety of courses than the lower divisions of most four-year institutions.

Thus, there are four general conclusions resulting from this study of the 23 students who completed General Biology 112 and transferred to four-year institutions: (1) The biology courses at Cuyahoga Community College are being transferred to and accepted by four-year institutions. (2) The quality of instruction at Cuyahoga Community College is equal to or better than that of these four-year institutions, according to the students responding. (3) Slightly more students are in poor academic standing at the receiving institutions than there were at the Metropolitan Campus prior to transfer. (4) A greater variety of courses in biological areas is desired by the students studying in this curriculum. [3]

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2 Since the time of this study, the Cuyahoga Community College Biology Department has nearly doubled its course offerings with the addition of: Introductory Biology 103, General Biology 113, Principles of Medical Science 123, 124, and 125, Anatomy and Physiology for Health Technologies 126 and 127, and Vertebrate Embryology 202.

APPENDIX

The Appendix of this report contains a copy of the interview instrument used in Part II of the study.

CUYAHOGA COMMUNITY COLLEGE
BIOLOGY DEPARTMENT
Office of Institutional Research
2123 East 9th Street
Cleveland, Ohio 44115

Q U E S T I O N N A I R E
Biology Transfer Students

This questionnaire is designed to provide information about college students who transfer from Cuyahoga Community College to four-year institutions. Specifically, this questionnaire is designed to collect information from transfer students who completed General Biology at Cuyahoga Community College. However, we are also seeking some information of a more general nature in order that your experiences may be used with that of your fellow students to continually improve our college programs.

We ask you to identify yourself only so that we may relate the data of the questionnaire to other information about students at this college. The persons who see the results of the questionnaire will not know your identity and the information will not be a part of your college record.

This is not a test and there are no right or wrong answers. Please answer all questions to the best of your ability. When you complete the questionnaire, please return it in the enclosed self-addressed envelope.

Thank you for your assistance

NAME: _____ _____ _____
Last First Middle Initial

Sex: F_____
M_____

Date: _____

I. In what type of program were you enrolled at Cuyahoga Community College?

1. _____ A curriculum designed primarily for students intending to transfer
2. _____ A curriculum designed primarily for students preparing for immediate employment
3. _____ A general curriculum

II. Did you earn an Associate in Arts Degree before transferring?

1. _____ Yes
2. _____ No

III. Regardless of your present major, did you have a declared major or academic field at the time you completed your work at Cuyahoga Community College?

1. _____ Yes 2. _____ No 3. If yes, what was it? _____

IV. Why did you take General Biology at Cuyahoga Community College:

1. _____ I desired transfer credit

2. _____ To satisfy requirements for biological major

3. _____ Other: Please specify _____
_____

V. On the whole, how well do you think your biology teachers at Cuyahoga Community College knew their subject material?

1. _____ Excellent
2. _____ Good
3. _____ Fair
4. _____ Sometimes poor
5. _____ Quite poor

VII. Have you taken any biology courses at your present institution?

1. _____ Yes
2. _____ No
3. If Yes, how many? _____

VIII. If the answer to VII is Yes, how would you rate your instruction in biology at Cuyahoga Community College as compared to your present institution.

1. _____ Instruction at Cuyahoga Community College was better
2. _____ Instruction at Cuyahoga Community College was equivalent
3. _____ Instruction at Cuyahoga Community College was not as good

IX. In transferring biology course work to your present institution, which of the following would best apply?

1. _____ Transferred with full credit in biology major program
2. _____ Transferred with full credit as elective only
3. _____ Transferred as partial credit
4. _____ Transferred as non-major science requirement
5. _____ Did not transfer
6. _____ Other _____

X. How would you rate our laboratory facilities as compared to your present institution?

Cuyahoga Community College	Four-Year College
1. _____ Excellent	1. _____ Excellent
2. _____ Good	2. _____ Good
3. _____ Fair	3. _____ Fair
4. _____ Poor	4. _____ Poor

XI. Compared to Cuyahoga Community College, how hard do you find it to achieve good grades in biology at your present institution?

1. _____ Very much harder here
2. _____ Somewhat harder here
3. _____ About the same
4. _____ Somewhat easier here
5. _____ Much easier here

XII. If you had no biology course work at your present institution, would you respond to question XI in regard to your other course work in general.

1. _____ Check here if this applies

XIII. For your needs, what is your present opinion about the extent of course offerings in biology at Cuyahoga Community College?

1. _____ Should offer greater variety of courses
2. _____ Keep the present courses only.
3. _____ Change the present courses to other subject area, such as Zoology, Embryology, etc.
4. _____ Other: Please specify _____

XIV. In regard to related science areas, in which, if any, of the following did you take course work at Cuyahoga Community College?

1. _____ Mathematics
2. _____ Chemistry
3. _____ Physics
4. _____ Does not apply

XV. In regard to your present institution, which of the following subject areas should be taken more extensively before transferring?

1. _____ Mathematics
2. _____ Chemistry
3. _____ Physics
4. _____ No Opinion

XVI. How do you rate the academic ability of the students at Cuyahoga Community College, compared to students at your present institution?

Cuyahoga Community College	Four-Year College
1. _____ Excellent	1. _____ Excellent
2. _____ Good	2. _____ Good
3. _____ Fair	3. _____ Fair
4. _____ Poor	4. _____ Poor
5. _____ Very Poor	5. _____ Very Poor

XVII. How important was each of the following reasons to you in reaching your decision to attend a junior rather than a four-year college as a freshman?

Please rate each reason by circling the appropriate number:

Rating: 1. Of no importance at all
2. Of minor importance
3. Of some importance
4. Of considerable importance
5. The most important reason for me

Least		Some		Most	
1	2	3	4	5	Low Cost
1	2	3	4	5	Closeness to home
1	2	3	4	5	Type of program (courses) offered
1	2	3	4	5	Social Life
1	2	3	4	5	College atmosphere, informality
1	2	3	4	5	Parents wanted me to do so
1	2	3	4	5	Best friends decided to attend
1	2	3	4	5	Wasn't sure what I wanted to do or major in
1	2	3	4	5	Opportunity to work while attending

1	2	3	4	5	Couldn't qualify for admission elsewhere
1	2	3	4	5	Athletic opportunities
1	2	3	4	5	Opportunities in extra-curricular activities
1	2	3	4	5	Advice of counselor
1	2	3	4	5	Felt I was not adequately prepared for senior college work
1	2	3	4	5	Advice of teacher
1	2	3	4	5	Other _____
1	2	3	4	5	_____

XVIII. Barring unforeseen events, how likely do you think it is that you will eventually graduate from college?

1. _____ Extremely likely
2. _____ Quite likely
3. _____ Fairly likely
4. _____ Somewhat doubtful

XIX. Listed below are some of the problems most often encountered by students transfering from two-year to four-year colleges. Please indicate your experience with each of these problems in transfering to this college, using the following scale, by circling the appropriate number.

Rating:
1. No problem at all
2. A minor problem
3. Quite serious
4. Very serious

No Problem			Very Serious	
1	2	3	4	Loss of credit earned in the junior college, upon transfer
1	2	3	4	Failure to complete prerequisites for upper division courses before transfer
1	2	3	4	Inadequate study habits for four-year college work (note taking, reading speed, writing term papers, etc.)
1	2	3	4	Trouble using the library at the four-year college

1	2	3	4	Can't understand all the college rules and regulations
1	2	3	4	Difficulty in participating in extra-curricular activities
1	2	3	4	Instructors expect a different amount or quality of work from that expected in the junior college
1	2	3	4	The president doesn't speak to me
1	2	3	4	Living arrangements are unsatisfactory
1	2	3	4	Opportunities for part-time employment are limited
1	2	3	4	Difficulty in finding social life on campus and making friends.
1	2	3	4	Differences in grading standards between the junior college and four-year college
1	2	3	4	Increased costs over the junior college
1	2	3	4	Difficulty in scheduling required courses here
1	2	3	4	Repetition of course content taken in the junior college
1	2	3	4	Impersonal attitude of faculty
1	2	3	4	Other _____
1	2	3	4	_____

XX. Listed below are some of the services commonly offered by colleges for the benefit of students choosing to take advantage of them. Please rate each service which you have used at least once, either in the junior college or in the four-year college, or both, by circling the appropriate number.

Rating: 1. Good
2. Fair
3. Poor

Junior College			Service	Four-Year College		
Good	Fair	Poor		Good	Fair	Poor
1	2	3	Counseling (personal problems)	1	2	3
1	2	3	Faculty advising (course, major, degree requirement)	1	2	3
1	2	3	Health Services	1	2	3

1	2	3	Financial aids services (loans, scholarships, part-time jobs)	1	2	3
1	2	3	Housing services	1	2	3
1	2	3	Writing clinics, reading improvement, study habits courses	1	2	3
1	2	3	Testing services (personality, vocational, etc.)	1	2	3
1	2	3	Orientation services	1	2	3
1	2	3	Recreational services	1	2	3
1	2	3	Leadership training	1	2	3
1	2	3	Registration Procedures	1	2	3
1	2	3	Other: _____	1	2	3
1	2	3	_____	1	2	3
1	2	3	_____	1	2	3

XXI. Please indicate below the college in which you are presently enrolled.

_____

XXII. Please feel free to include any additional comments that you feel would enable us to better serve the student needs at Cuyahoga Community College.

5-20-69
DEG/bb